

REMARKS

Claims 13, 20, and 22-29 are pending in the application. Claims 20, 23, and 25 have been withdrawn. Claims 13, 22, 24, and 26-29 are rejected. Claim 13 has been amended herein. No new matter has been added as a result of the amendment.

Amendments to the Claims

Claim 13 has been amended to reflect the following:

A method of assembling an actuator arm system for a hard disk drive comprising:

- positioning a lower bearing on a flange, the lower bearing having an inner race and an outer race, the flange supports the inner race in an axial direction relative to a shaft and the flange is in direct contact with the inner race, and wherein the lower bearing and an upper bearing are positioned on the same side of the flange;

- placing an actuator arm on the outer race of the lower bearing wherein the actuator arm is in contact with the outer race of the lower bearing;

- placing the upper bearing on the shaft, the upper bearing having an inner race and an outer race, wherein the outer race of the upper bearing is in contact with the actuator arm, such that the actuator arm is positioned between the lower bearing and the upper bearing;

- applying an adhesive between the inner race of the upper bearing and the shaft;

- applying an axial preload force to the inner race of the upper bearing;

- curing the adhesive; and

- releasing the preload force.

Support for the amendment, “wherein the outer race of the upper bearing is in contact with the actuator arm, such that the actuator arm is located between the lower bearing and the upper bearing”, can be found in Applicants’ specification at least on page 2, lines 26-27, and Figure 3.

35 U.S.C. §103 Rejections

The Office Action mailed May 21, 2008 (hereinafter, “instant Office Action”) rejected Claims 13, 22, 24, and 26-29 under 35 U.S.C. §103(a) as being unpatentable over Krum et al. (U.S. Patent App. No. 5,482,381) (hereinafter, “Krum”) in view of Kitahara et al. (U.S. Patent App. No. 4,900,958) (hereinafter, “Kitahara”) et al. The rejections and comments set forth in the instant Office Action have been carefully considered by the Applicants. Applicants respectfully submit that Claims 13, 22, 24 and 26-29 are patentable over Krum in view of Kitahara for at least the following rationale.

Claims 13, 22, 24, and 26-29

Amended Claim 13 recites:

A method of assembling an actuator arm system for a hard disk drive comprising:

positioning a lower bearing on a flange, the lower bearing having an inner race and an outer race, the flange supports the inner race in an axial direction relative to a shaft and the flange is in direct contact with the inner race, and wherein the lower bearing and an upper bearing are positioned on the same side of the flange;

placing an actuator arm on the outer race of the lower bearing wherein the actuator arm is in contact with the outer race of the lower bearing;

placing the upper bearing on the shaft, the upper bearing having an inner race and an outer race, wherein the outer race of the upper bearing is in contact with the actuator arm, such that the actuator arm is positioned between the lower bearing and the upper bearing;

applying an adhesive between the inner race of the upper bearing and the shaft;

applying an axial preload force to the inner race of the upper bearing;
curing the adhesive; and

releasing the preload force.

(Emphasis added.)

Applicants respectfully submit that the combination of Krum and Kitahara does not satisfy the requirements of a *prima facie* case of obviousness because the combination of Krum and Kitahara as a whole fails to suggest the features of Claims 13, 22, 24, and 26-29 as claimed and is therefore not obvious.

“As reiterated by the Supreme Court in *KSR*, the framework for the objective analysis for determining obviousness under 35 U.S.C. 103 is stated in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). Obviousness is a question of law based on underlying factual inquiries” including “[a]scertaining the differences between the claimed invention and the prior art” (MPEP 2141(II)). “In determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious” (emphasis in original; MPEP 2141.02(I)).

Moreover, Applicants respectfully note that “[t]he prior art reference (or references when combined) need not teach or suggest all the claim limitations. However, Office personnel must explain why the difference(s) between the prior art and the claimed invention would have been obvious to one of ordinary skill in the art” (emphasis added; MPEP 2141[III]).

Applicants respectfully submit that Krum does not suggest, “placing the upper bearing on the shaft, the upper bearing having an inner race and an outer race, wherein the outer race of the upper bearing is in contact with the actuator arm, such that the actuator arm is positioned between the lower bearing and the upper bearing” (emphasis added) as is recited in amended Claim 13. Applicants understand Krum to teach, “a bearing assembly disposed between the pivot shaft and the actuator” (Krum, Abstract). As can be clearly seen in Krum’s Figure 2, Krum fails to teach that an “outer race of the upper bearing is in contact with the actuator arm, such that the actuator arm is positioned between the lower bearing and the upper bearing” (emphasis added) as is recited in Applicants’ Claim 13.

Furthermore, Applicants respectfully submit that the combination of Krum and Kitahara fails to suggest the features of Applicants’ Claim 13 as a whole because neither Krum nor Kitahara provide a motivation to modify Krum to arrive at embodiments of Applicants’ invention.

Applicants understand Kitahara to teach “[a] rotor frame [that] is rotatably supported in a cantilever fashion on a free end of the center shaft by a pair of bearings” (Kitahara, Abstract). Specifically, Kitahara does not suggest an “outer race of the upper bearing [that] is in contact with the actuator arm, such that the actuator arm is positioned

between the lower bearing and the upper bearing” (emphasis added) as is recited in amended Claim 13.

Additionally, Applicants respectfully submit that the instant Office Action fails to explain why the differences between Krum, Kitahara, and Applicants’ claimed features would have been obvious to one of ordinary skill in the art, and that Claim 13 as a whole is not obvious over the combination of Krum and Kitahara.

Thus, in view of the combination of Krum and Kitahara not satisfying the requirements of a *prima facie* case of obviousness, Applicants respectfully assert that Claim 13 is patentable. Applicants respectfully submit that Claims 22, 24, and 26-29 depending on Claim 13 are patentable as being dependant upon an allowable base Claim.

CONCLUSION

In light of the amendments and remarks presented herein, Applicants respectfully assert that Claims 13, 22, 24, and 26-29 overcome the rejections of record. Therefore, Applicants respectfully solicit allowance of these Claims.

The Examiner is urged to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Respectfully submitted,
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